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Isao Shindo

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P.O. BOX 980

VALLEY FORGE, PA 19482

EXAMINER

KAY, MARY ANNE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,774	Applicant(s) SHINDO ET AL.	
	Examiner MARY A. KAY	Art Unit 2426	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-6 and 9-18 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1-6 and 9-18 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered August 24, 2011 for the patent application 10/594774 filed on September 29, 2006.
2. The Office Actions of November 10, 2009, May 21, 2010, December 6, 2010 and May 24, 2011 are fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1-6 and 9-18 are pending in this application.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schrader et al. (U.S. PGPub 2002/0166123 A1, referred to as **Schrader**) in view of Nejime et al. (U.S. Patent 7,272,843, referred to as **Nejime**) in further view of Dureau (U.S. Patent 7,634,795, referred to as **Dureau**), Paragraph 21. below applies.

Claim 1

Schrader teaches:

An accumulation display device comprising:

a reception unit that receives a currently broadcasted program content, index information associating a currently broadcasted program content with an index and specifying a scene of the program and trigger information including mode information for special reproduction of the program content and constituting metadata with the index information (**Schrader ¶¶ 0055-0056, 0120**; Examiner's Note (EN): Client receiver receives content with index and metadata with triggering information. Paragraph 21. below applies);

an accumulation unit that accumulates the program content, the index information and the trigger information (**Schrader ¶¶ 0054, 0120**; EN: Content, index, and information about the triggering event are recorded. Paragraph 21. below applies);

a main display unit receiving and displaying the input of the program content received by the reception unit (**Schrader ¶ 0035**; EN: Video display divided into various display areas including a navigation display portion and a program display portion. Paragraph 21. below applies);

a metadata interpretation unit that interprets the index information and the trigger information of the currently broadcasted or the accumulated program content and outputs mode information for special reproduction (**Schrader**

¶ 0134; EN: Metadata unit includes playback information for special inquiries. Paragraph 21. below applies); and

a mobile data terminal management unit managing information of the mobile data terminal to which the restructured program content should be outputted (**Schrader** ¶ 0038, 0078, 0098, 0101; EN: Set top box. A display could be presented via a PDA that communicates with a set-top box including at least one tuner. the system operates to create navigation elements and other enhanced content based on the received IP content. The cell phone, PDA, or other non-tuner device is also downloaded the enhanced theme schedule that relates IP data to television program listings (as customized for the user));

the mobile data terminal management unit manages information of the mobile data terminal and further, transmits to the mobile data terminal, metadata for the video operation menu corresponding to the mobile data terminal, and then realizes a video operation menu on the mobile data terminal (**Schrader** ¶ 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA).

an accumulated image processing unit extracting at least a part of the program content based on the mode information from the trigger information, restructures the program content extracted based on the mode information, restructures the program content extracted based on the mode information (**Schrader** ¶¶ 0066-0067; EN: Highlight logs of the

content are used by the client system for assembling the content according to specific playback modes. Paragraph 21. below applies); the reception unit of the mobile data terminal receives the metadata for the video operation menu and realizes a video operation menu on the mobile data terminal based on the metadata for the video operation menu (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA).

the reception unit of the mobile data terminal receives restructured program content and the metadata for the video operation menu and realizes a video operation menu on the mobile data terminal based on the metadata for the video operation menu (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA).

Schrader does not explicitly disclose:

an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and outputs the restructured program content to the mobile data terminal; and

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information start time data of the corresponding program, and finish time data of the corresponding program.

the accumulated image processing unit outputs the restructured program content to the mobile data terminal, and displays the restructured program content

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video operated on the mobile data terminal in a manner that the currently broadcasted original program content received by the reception unit is displayed in parallel on the main display unit.

Nejime teaches:

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information start time data of the corresponding program, and finish time data of the corresponding program (**Nejime** C6:6-41; EN: Start and end time in auxiliary information).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** with the program ID as taught by **Nejime** for the purpose of providing making it possible to play back the program in a mode interlocked with auxiliary information with the auxiliary information used as a supplement to broadcast information.

Schrader in view of **Nejime** does not explicitly disclose:

an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and outputs the restructured program content to the mobile data terminal; and the accumulated image processing unit outputs the restructured program content to the mobile data terminal, and displays the restructured program content video operated on the mobile data terminal in a manner that the currently

broadcasted original program content received by the reception unit is displayed in parallel on the main display unit.

Dureau teaches:

an accumulated image processing unit connected with a mobile data terminal functioning as a sub reception and display unit, and outputs the restructured program content to the mobile data terminal (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device);

the accumulated image processing unit outputs the restructured program content to the mobile data terminal, and displays the restructured program content video operated on the mobile data terminal in a manner that the currently broadcasted original program content received by the reception unit is displayed in parallel on the main display unit (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** with the mobile data terminal as taught by **Dureau** for the purpose of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

Claim 2

Schrader teaches:

wherein the trigger information includes mode information for performing special reproduction of **at least anyone** of interlocked reproduction, replay reproduction, highlight reproduction, and follow reproduction of a currently viewed program content (**Schrader** ¶ 100; EN: Trigger notifies of extended video recording. Paragraph 21. below applies).

Claim 3

Schrader teaches:

further comprising a display unit that displays the currently broadcasted or the accumulated program content and the mode information for special reproduction (**Schrader** Fig. 5 el. 122; ¶ 0077; EN; Display device).

Claim Rejections - 35 USC § 103

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of Shteyn (U.S. PGPub 2002/0144007 A1, referred to as **Shteyn**), Paragraph 21. below applies.

Claim 4

Schrader teaches:

wherein the accumulated image processing unit extracts at least a part of the accumulated program content based on trigger information received after the request or the latest trigger information of the request, and outputs the restructured program content (**Schrader** ¶¶ 0066-0067; EN: Highlight logs

of the content are used by the client system for assembling the content according to specific playback modes. Paragraph 21. below applies).

Schrader et al. does not explicitly disclose:

according to a request of mode information for special reproduction from a sub-display device receiving a restructured program content.

Shteyn teaches:

according to a request of mode information for special reproduction from a sub-display device receiving a restructured program content (**Shteyn** ¶ 0031; EN: Information in the meta-data enables the user to receive information from the set-top box that has been received from a broadcaster. Examiner interprets that there is additional information in meta-data regarding structure of information to be sent to user. Paragraph 21. below applies).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the meta-data information as taught by **Shteyn** for the purpose of providing information content associated with the network.

Claim Rejections - 35 USC § 103

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of Kinno et al. (U.S. PGPub 2003/0154217 A1, referred to as **Kinno**), Paragraph 21. below applies.

Claim 5

Schrader et al. does not explicitly disclose:

a sub-display device management unit that manages terminal information
including a terminal ID and performance of at least one mobile data
terminal receiving a restructured program content Hamano,
wherein the accumulated image processing unit processes and outputs a
program content according to performance of each sub-display device.

Shteyn teaches:

wherein the accumulated image processing unit processes and outputs a
program content according to performance of each sub-display device
(**Shteyn** ¶ 0061; EN: Each device may be different).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the
invention was made to modify the teachings of **Schrader** et al. with the specific
client configuration as taught by **Shteyn** for the purpose of providing output in
accordance with the user's preferences and the preferred service providers.

Schrader et al. does not explicitly disclose:

a sub-display device management unit that manages terminal information
including a terminal ID and performance of at least one sub-display device
receiving a restructured program content.

Kinno teaches:

a sub-display device management unit that manages terminal information including a terminal ID and performance of at least one mobile data terminal receiving a restructured program content (**Kinno** Fig. 18, el. 1501; ¶¶ 0025, 0126-0131; EN: Examiner interprets the user identification as the terminal ID and mobile networks are included. Examiner interprets that mobile data terminals are included. Paragraph 21. below applies),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the management unit as taught by **Kinno** for the purpose of providing a process regarding the information delivery system.

Claim Rejections - 35 USC § 103

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Dimitrova in view of **Schrader** in further view of **Dureau**.

Claim 6

Dimitrova teaches:

A mobile data terminal comprising:

an input unit that receives an input from a user (**Dimitrova** ¶ 0024; EN: User

input interface which receives input control signals from an input device);

a transmission unit that transmits user select information received by the input

unit to the accumulation display device (**Dimitrova** ¶ 0030; EN: Handheld

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device may be used to control the operation of the residential gateway system);

(**Dimitrova ¶¶** 0025-0027, 0030, 0031; EN: Handheld device may be used to control the operation of the residential gateway system, which includes visual table of contents allowing navigation within the system and additional features such as recording, playing, scene discovery, etc.); and a display unit connected with the reception unit (**Dimitrova ¶** 0026; EN: Display screen);

Dimitrova does not explicitly disclose:

a reception unit that receives a program content restructured based on the user select information and metadata for the video operation menu corresponding to the mobile data terminal from the accumulation display device;

wherein the reception unit receives restructured program content and the metadata for the video operation menu from the accumulation display device realizes a video operation menu on the mobile data terminal; and the display unit of the mobile data terminal displays the received and restructured program content video operated in a manner that an original program content received by the accumulation display device is displayed in parallel on the main display unit of the accumulation display device.

Schrader teaches:

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a reception unit that receives a program content restructured based on the user select information and metadata for the video operation menu corresponding to the mobile data terminal from the accumulation display device (**Schrader ¶** 0038, 0078, 0098, 0101; EN: A display could be presented via a PDA that communicates with a set-top box including at least one tuner. the system operates to create navigation elements and other enhanced content based on the received IP content. The cell phone, PDA, or other non-tuner device is also downloaded the enhanced theme schedule that relates IP data to television program listings (as customized for the user). Navigation display guide information on the PDA);

wherein the reception unit receives restructured program content and the metadata for the video operation menu from the accumulation display device realizes a video operation menu on the mobile data terminal (**Schrader ¶** 0038, 0078, 0098, 0101; EN: A display could be presented via a PDA that communicates with a set-top box including at least one tuner. the system operates to create navigation elements and other enhanced content based on the received IP content. The cell phone, PDA, or other non-tuner device is also downloaded the enhanced theme schedule that relates IP data to television program listings (as customized for the user). Navigation display guide information on the PDA);

Rationale:

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Dimitrova** with the PDA and menu as taught by **Schrader** for the purpose of providing a television service enabling enhance Digital Video Recording (DVR) capability by providing content in conjunction with broadcast television programming. The content is associated with the broadcast television programming to enable record and/or playback one or more programs in various modes of operation.

Dimitrova in view of **Schrader** does not explicitly disclose:

the display unit of the mobile data terminal displays the received and restructured program content video operated in a manner that an original program content received by the accumulation display device is displayed in parallel on the main display unit of the accumulation display device.

Dureau teaches:

the display unit of the mobile data terminal displays the received and restructured program content video operated in a manner that an original program content received by the accumulation display device is displayed in parallel on the main display unit of the accumulation display device (**Dureau** Fig. 3 elements 340, 352E, Fig. 4 elements 320F, 314; C8:18-62, C9:33-49; EN: Broadcast television audio/video signal transcoded and output to handheld device. Receiver includes DVD which may be remotely controlled by the PDA).

Rationale:

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Dimitrova** with the mobile data terminal as taught by **Dureau** for the purpose of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

Claim Rejections - 35 USC § 103

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Kinno**.

Claim 9

Schrader et al. does not explicitly disclose:

wherein the index information further includes meaning information describing contents of a program content specified by an index at a keyword level.

Kinno teaches:

wherein the index information further includes meaning information describing contents of a program content specified by an index at a keyword level
(**Kinno** ¶ 0021).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the description as taught by **Kinno** for the purpose of providing information for the client.

Claim Rejections - 35 USC § 103

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of **Kinno** in further view of Gardere et al. (U.S. Patent 6,678,332, referred to as **Gardere**), Paragraph 21. below applies.

Claim 10

Schrader et al. does not explicitly disclose:

mode information for identifying the trigger information.

start time specifying an extracted scene, and extraction time, thereby specifying

timing transmitting at least a part of the program content to the mobile

data terminal;

wherein the trigger information includes one or more of a program ID for

identifying a program corresponding to the trigger information.

Shteyn teaches:

mode information for identifying the trigger information (**Shteyn** ¶ 0031),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the meta-data information as taught by **Shteyn** for the purpose of providing information content associated with the network.

Schrader et al. does not explicitly disclose:

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start time specifying an extracted scene, and extraction time, thereby specifying timing transmitting at least a part of the program content to the mobile data terminal, wherein the trigger information includes one or more of a program ID for identifying a program corresponding to the trigger information.

Kinno teaches:

start time specifying an extracted scene, and extraction time, thereby specifying timing transmitting at least a part of the program content to the mobile data terminal (**Kinno** ¶¶ 0089-0092).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the times as taught by **Kinno** for the purpose of providing verification of the sequence information according to a request of the controlling media received from client terminal.

Schrader et al. does not explicitly disclose:

wherein the trigger information includes one or more of a program ID for identifying a program corresponding to the trigger information.

Gardere teaches:

wherein the trigger information includes one or more of a program ID for identifying a program corresponding to the trigger information (**Gardere** C26:23-30; EN: Paragraph 21. below applies).

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Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the program ID as taught by **Gardere** for the purpose of providing program information identification numbers to allow the appropriate viewing according to the authorization of the client.

Claim Rejections - 35 USC § 103

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of **Kinno** in further view of **Gardere** in further view of Zander et al. (U.S. Patent 6,360,218, referred to as **Zander**), Paragraph 21. below applies.

Claim 11

Schrader et al. does not explicitly disclose:

mode information for identifying the trigger information;
thereby specifying timing transmitting at least a part of the program content to the mobile data terminal;
wherein the trigger information includes a program ID for identifying a program corresponding to the trigger information;
a specified index ID for identifying specified index information.

Shteyn teaches:

mode information for identifying the trigger information (**Shteyn** ¶ 0031; EN:
Information in the meta-data enables the user to receive information from

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the set-top box that has been received from a broadcaster. Examiner interprets that there is additional information in meta-data regarding structure of information to be sent to user. Paragraph 21. below applies),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the meta-data information as taught by **Shteyn** for the purpose of providing information content associated with the network.

Schrader et al. does not explicitly disclose:

thereby specifying timing transmitting at least a part of the program content to the mobile data terminal.

Kinno teaches:

thereby specifying timing transmitting at least a part of the program content to the mobile data terminal (**Kinno** ¶ 0010; EN: Start time and Finish time retrieved).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the timeframe as taught by **Kinno** for the purpose of providing information to the client for appropriate scene retrieval.

Schrader et al. does not explicitly disclose:

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wherein the trigger information includes a program ID for identifying a program corresponding to the trigger information.

Gardere teaches:

wherein the trigger information includes a program ID for identifying a program corresponding to the trigger information (**Gardere** C26:23-30; EN: The clip identification attributes are analogous to the attributes in the metadata index attributes. Paragraph 21. below applies).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the program ID as taught by **Gardere** for the purpose of providing identification of the components in the stream.

Schrader et al. does not explicitly disclose:

a specified index ID for identifying specified index information.

Zander teaches:

a specified index ID for identifying specified index information (**Zander** C8:3-5; EN: Record Identifier),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the index number as taught by **Zander** for the purpose of providing an ordered index which can be used by the client.

Claim Rejections - 35 USC § 103

12. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of **Shteyn** in further view of **Kinno** in further view of **Gardere** in further view of **Zander** in further view of Munetsugu et al. (U.S. Patent 7,134,074, referred to as **Munetsugu**).

Claim 12

Schrader et al. does not explicitly disclose:

wherein the trigger information further includes meaning information describing a
program content associated with index information at a keyword level;
grading index information of weight of the meaning information according to a
degree of importance of the program content.

Kinno teaches:

wherein the trigger information further includes meaning information describing a
program content associated with index information at a keyword level
(**Kinno** ¶ 0021),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the keywords as taught by **Kinno** for the purpose of providing information for the client.

Schrader et al. does not explicitly disclose:

grading index information of weight of the meaning information according to a
degree of importance of the program content.

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Munetsugu teaches:

grading index information of weight of the meaning information according to a degree of importance of the program content (**Munetsugu** C5:49-C6:22; EN: Importance of partial program taken into account during restructuring).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the Importance as taught by **Munetsugu** for the purpose of providing importance information based on criteria concerning the client that is decided at the broadcaster.

Claim 15

Schrader teaches:

wherein the trigger information includes accumulation instruction information instructing accumulation of the corresponding program content (**Schrader** ¶ 0128; EN: Data alert is analogous with instruction to link additional programming).

Claim Rejections - 35 USC § 103

13. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of **Dureau** in further view of Hoshino et al. (U.S. PGPub 2004/0249861 A1, referred to as **Hoshino**) in further view of **Munetsugu**.

Claim 13

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Schrader et al. does not explicitly disclose:

wherein the accumulated image processing unit adds, to the restructured program content, superimpose information displayed as an image separate from the program content, and changes and restructures time of each partial program content at restructuring the partial program content based on meaning information included in the trigger information and the index information

Hoshino teaches:

wherein the accumulated image processing unit adds, to the restructured program content, superimpose information displayed as an image separate from the program content (**Hoshino** ¶¶ 0207-208; EN: Metadata converted to video data for superimposition).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the metadata as taught by **Hoshino** for the purpose of providing synthesized video signal for the client.

Schrader et al. does not explicitly disclose:

changes and restructures time of each partial program content at restructuring the partial program content based on meaning information included in the trigger information and the index information.

Munetsugu teaches:

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changes and restructures time of each partial program content at restructuring the partial program content based on meaning information included in the trigger information and the index information (**Munetsugu** C5:49-C6:22; EN: Importance of partial program taken into account during restructuring).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the importance as taught by **Munetsugu** for the purpose of providing importance information based on criteria concerning the client that is decided at the broadcaster.

Claim 14

Schrader et al. does not explicitly disclose:

wherein the superimpose information is generated using any of meaning information of trigger information, a trigger name, and meaning information of index information.

Hoshino teaches:

wherein the superimpose information is generated using any of meaning information of trigger information, a trigger name, and meaning information of index information (**Hoshino** ¶¶ 0207-208; EN: Metadata converted to video data for superimposition).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** et al. with the metadata as taught by **Hoshino** for the purpose of providing synthesized video signal for the client.

Claim Rejections - 35 USC § 103

14. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Nejime** in further view of Dimitrova et al. (U.S. PGPub 2006/0041915 A1, referred to as **Dimitrova**) in further view of **Dureau**, Paragraph 21. below applies.

Claim 16

Schrader teaches:

An interlocked display system comprising
an accumulation display device receiving and displaying a currently broadcasted
program content as a main reception and display terminal (**Schrader ¶¶**
0055-0056, 0120; EN: Client receiver receives content with index and
metadata with triggering information. Paragraph 21. below applies);

the accumulation display device including:

a reception unit that receives a currently broadcasted program content, index
information associating a currently broadcasted program content with an
index and specifying a scene of the program and trigger information
including mode information for special reproduction of the program content
and constituting metadata with the index information (**Schrader ¶¶** 0055-

0056, 0120; EN: Client receiver receive content with index and metadata with triggering information. Paragraph 21. below applies);

an accumulation unit that accumulates the program content, the index information and the trigger information (**Schrader ¶¶** 0054, 0120; EN: content, index, and information about the triggering event are recorded. Paragraph 21. below applies);

a main display unit receiving and displaying the input of the program content received by the reception unit (**Schrader ¶** 0035; EN: video display divided into various display areas including a navigation display portion and a program display portion. Paragraph 21. below applies);

a metadata interpretation unit that interprets the index information and the trigger information of the currently broadcasted or the accumulated program content and outputs mode information for special reproduction (**Schrader ¶** 0134; EN: Metadata unit include playback information for special inquiries. Paragraph 21. below applies); and

an accumulated image processing unit connected with the mobile data terminal, and extracting at least a part of the accumulated program content based on the mode information from the trigger information, restructures the program content extracted based on the mode information, and outputs the restructured program content to the mobile data terminal (**Schrader ¶¶** 0078, 0100-0101; EN: Trigger notifies recorder to record event without user intervention. Paragraph 21. below applies).

a mobile data terminal management unit managing information of the mobile data terminal to which the restructured program content should be outputted (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Set top box. A display could be presented via a PDA that communicates with a set-top box including at least one tuner. the system operates to create navigation elements and other enhanced content based on the received IP content. The cell phone, PDA, or other non-tuner device is also downloaded the enhanced theme schedule that relates IP data to television program listings (as customized for the user));

wherein, between the accumulation display device and the mobile data terminal, the mobile data terminal management unit manages information of the mobile data terminal and further, transmits to the mobile data terminal, metadata for the video operation menu corresponding to the mobile data terminal, and then realizes a video operation menu on the mobile data terminal (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA).

the reception unit of the mobile data terminal receives the metadata for the video operation menu and realizes a video operation menu on the mobile data terminal based on the metadata for the video operation menu (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA);

the reception unit of the mobile data terminal receives restructured program content and the metadata for the video operation menu and realizes a video operation menu on the mobile data terminal based on the metadata for the video operation menu from the accumulation display device (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA), and

the mobile data terminal management unit manages information of the mobile data terminal and further, transmits to the mobile data terminal, metadata for the video operation menu corresponding to the mobile data terminal, and then realizes a video operation menu on the mobile data terminal (**Schrader ¶** 0038, 0078, 0098, 0101; EN: Navigation display guide information on the PDA);

Schrader does not explicitly disclose:

the accumulation display device including:

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information, starttime data of the corresponding program, and finishtime data of the corresponding program,

a mobile data terminal connected with the accumulation display device and receiving a program content restructured for special reproduction from the accumulation display device and displaying the restructured program content as a sub reception and display terminal,

the mobile data terminal including:

an input unit that receives an input from a user;

a transmission unit that transmits user select information received by the input unit to the accumulation display device;

a reception unit that receives a program content restructured based on the user select information from the accumulation display device; and

a display unit connected with the reception unit;

wherein, between the accumulation display device and the mobile data terminal,

the accumulated image processing unit of the accumulation display device extracts at least a part of the program content from the index information based on contents of the trigger information, restructures the program content extracted based on the mode information, and outputs the restructured program content to the mobile data terminal; and

the display unit of the mobile data terminal displays the received and restructured program content video operated in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device.

Nejime teaches:

the index information includes a program ID for identifying a program corresponding to the index information, an ID for identifying the index information, starttime data of the corresponding program, and finishtime

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data of the corresponding program (**Nejime** C6:6-41; EN: Start and end time in auxiliary information),

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** with the program ID as taught by **Nejime** for the purpose of providing making it possible to play back the program in a mode interlocked with auxiliary information with the auxiliary information used as a supplement to broadcast information.

Schrader in view of **Nejime** does not explicitly disclose:

a mobile data terminal including:

an input unit that receives an input from a user.

a transmission unit that transmits user select information received by the input unit to the accumulation display device;

a reception unit that receives a program content restructured based on the user select information from the accumulation display device; and

a display unit connected with the reception unit;

wherein, between the accumulation display device and the mobile data terminal, the accumulated image processing unit of the accumulation display device extracts at least a part of the program content from the index information based on contents of the trigger information, restructures the program content extracted based on the mode information, and outputs the restructured program content to the mobile data terminal;

Dimitrova teaches:

a mobile data terminal including:

an input unit that receives an input from a user (**Dimitrova** ¶¶ 0024, 0030; EN: Keyboard).

a transmission unit that transmits user select information received by the input unit to the accumulation display device (**Dimitrova** ¶¶ 0024, 0030; EN: Handheld device connected to gateway via network);

a reception unit that receives a program content restructured based on the user select information from the accumulation display device (**Dimitrova** ¶¶ 0025-0027, 0030; EN: Handheld device may be used to control the operation of the residential gateway system); and

a display unit connected with the reception unit (**Dimitrova** ¶ 0026; EN: Display screen);

wherein, between the accumulation display device and the mobile data terminal, the accumulated image processing unit of the accumulation display device extracts at least a part of the program content from the index information based on contents of the trigger information, restructures the program content extracted based on the mode information outputs the restructured program content to the mobile data terminal (**Dimitrova** ¶¶ 0027-0030; EN: Display modes triggered by the handheld device. Paragraph 21. below applies);

Rationale:

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** with the mobile data terminal as taught by **Dimitrova** for the purpose of providing a residential gateway system having a handheld controller for communicating with and controlling the residential gateway system, in which the communication channel between the residential gateway system and the handheld controller is used efficiently.

Schrader in view of **Nejime** in further view of **Dimitrova** does not explicitly disclose:

a mobile data terminal connected with the accumulation display device and receiving a program content restructured for special reproduction from the accumulation display device and displaying the restructured program content as a sub reception and display terminal, the display unit of the mobile data terminal displays the received and restructured program content video operated in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device.

Dureau teaches:

a mobile data terminal connected with the accumulation display device and receiving a program content restructured for special reproduction from the accumulation display device and displaying the restructured program content as a sub reception and display terminal (**Dureau** C8:18-36; EN:

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Broadcast television audio/video signal transcoded and output to handheld device),

the display unit of the mobile data terminal displays the received and restructured program content video operated in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on the main display unit of the accumulation display device (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** in further view of **Dimitrova** with the program content displayed in parallel as taught by **Dureau** for the purpose of providing of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

Claim 17

Schrader et al. does not explicitly disclose:

wherein the accumulation display device as a server transmits a restructured program content to the mobile data terminal via a network.

Dimitrova teaches:

wherein the accumulation display device as a server transmits a restructured program content to the mobile data terminal via a network (**Dimitrova** ¶¶ 0024, 0030; EN: Handheld device connected to gateway via network).

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Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Nejime** in further view of **Dureau** with the mobile data terminal as taught by **Dimitrova** for the purpose of providing a residential gateway system having a handheld controller for communicating with and controlling the residential gateway system, in which the communication channel between the residential gateway system and the handheld controller is used efficiently.

Claim Rejections - 35 USC § 103

15. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Schrader** in view of **Dimitrova** in further view of **Dureau**, Paragraph 21. below applies.

Claim 18

Schrader teaches:

An interlocked display method using an accumulation display device reproducing a currently broadcasted program content and a mobile data terminal interlocking with the accumulation display device to perform special reproduction of the program content, the accumulation display device comprising the steps of:

receiving the currently broadcasted program content, index information associating a currently broadcasted program content with an index and specifying a scene of the program and trigger information including mode information for special reproduction of the program content and

constituting metadata with the index information (**Schrader ¶¶** 0055-0056, 0120; EN: Client receiver receives content with index and metadata with triggering information. Paragraph 21. below applies);
accumulating the program content, the index information and the trigger information (**Schrader ¶¶** 0054, 0120; EN: Content, index, and information about the triggering event is recorded. Paragraph 21. below applies);
displaying the received program content (**Schrader ¶** 0035; EN: Video display divided into various display areas including a navigation display portion and a program display portion. Paragraph 21. below applies);
extracting at least a part of the accumulated program content associated with the index information based on mode information from the trigger information, restructuring the program content extracted based on the mode information, (**Schrader ¶¶** 0066-0067; EN: Highlight logs of the content are used by the client system for assembling the content according to specific playback modes. Paragraph 21. below applies),

Schrader does not explicitly disclose:

outputting the restructured program content to the mobile data terminal,
wherein, in the step of outputting the restructured program content to the mobile data terminal, extracting at least a part of the program content from the index information based on contents of the trigger information, restructuring the program content extracted based on the mode

information, and outputting the restructured program content to the mobile data terminal,
the data terminal comprising the steps of:
receiving the program content restructured from the accumulation display device;
and
displaying the received and restructured program content in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on a main display unit of the accumulation display device.

Dimitrova teaches:

outputting the restructured program content to the mobile data terminal
(**Dimitrova** ¶¶ 0025-0026; EN: Broadcast video transcoded and output to handheld device. Examiner interprets that example of HDTV is broadcast in to gateway receiver and handheld device. Paragraph 21. below applies),
wherein, in the step of outputting the restructured program content to the mobile data terminal, extracting at least a part of the program content from the index information based on contents of the trigger information, restructuring the program content extracted based on the mode information, and outputting the restructured program content to the mobile data terminal (**Dimitrova** ¶¶ 0027-0030; EN: Display modes triggered by the handheld device. Paragraph 21. below applies),

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the data terminal comprising the steps of:

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** with the mobile data terminal as taught by **Dimitrova** for the purpose of providing a residential gateway system having a handheld controller for communicating with and controlling the residential gateway system, in which the communication channel between the residential gateway system and the handheld controller is used efficiently.

Schrader in view of **Dimitrova** does not explicitly disclose:

receiving the program content restructured from the accumulation display device;
and
displaying the received and restructured program content in a manner that the currently broadcasted original program content received by the accumulation display is displayed in parallel on a main display unit of the accumulation display device.

Dureau teaches:

receiving the program content restructured from the accumulation display device
(**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device); and
displaying the received and restructured program content in a manner that the currently broadcasted original program content received by the

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accumulation display is displayed in parallel on a main display unit of the accumulation display device (**Dureau** C8:18-36; EN: Broadcast television audio/video signal transcoded and output to handheld device).

Rationale:

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of **Schrader** in view of **Dimitrova** with the mobile data terminal as taught by **Dureau** for the purpose of providing a receiver as a proxy to transcode data and provide for intercommunication among secondary devices.

Response to Arguments

16. In reference to Applicant's argument:

Applicants' invention, as recited by claim 1, includes features which are neither disclosed nor suggested by the art of record.

Claim 6 has been rejected under 35 U.S.C. ¶ 103(a) as being unpatentable over Dimitrova in view of Dureau. Again, however, Dureau lacks Applicants' claimed "metadata" feature.

Claims 16 and 17 have been rejected under 35 U.S.C. ¶ 103(a) as being unpatentable over Schrader in view of Nejime, Dimitrova (US 2006/0041915) and Dureau. Again, the prior art of record lacks Applicants' claimed "metadata" feature. Thus, claim 16 is patentable over the art of record. Claim 17 is patentable by virtue of its dependency on allowable claim 16.

Examiner's Response:

Applicant's arguments with respect to claims 1, 6 and 16 have been considered but are moot in view of the new ground(s) of rejection.

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17. In reference to Applicant's argument:

Claim 18 has been rejected under 35 U.S.C. ¶ 103(a) as being unpatentable over Schrader in view of Dimitrova. Neither of these references, however, include Applicants' claimed "metadata" feature. Accordingly, claim 18 is patentable over the art of record.

Examiner's Response:

Applicant's arguments have been fully considered but they are not persuasive. The metadata provided by Schrader provides for a navigation guide as provided also in amended claims 1, 6 and 16. Therefore without additional information, the Schrader reference reasonably meets the limitations as claimed.

Examination Considerations

18. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim should not be read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969) (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

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19. Examiner's Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

20. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

21. Examiner's Opinion: ¶¶ 18.-20. apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

23. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to MARY ANNE KAY whose telephone number is (571)270-5677, FAX (571)270-6677, e-mail mary.kay@uspto.gov. The Examiner can normally be reached on Monday -Thursday and every other Friday, 8:00 AM - 5:00 PM, EST.

As detailed in MPEP 502.03, communications via Internet e-mail are at the discretion of the Applicant. Without a written authorization by Applicant recorded in the Applicant's file, the USPTO will not respond via e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate patent application. The following is an example authorization which may be used by the Applicant:

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Notwithstanding the lack of security with Internet Communications, I hereby authorize the USPTO to communicate with me concerning any subject matter related to the instant application by e-mail. I understand that a copy of such communications related to formal submissions will be made of record in the applications file.

If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Hirl can be reached on (571)272-3685. Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571)273-8300 (for formal communications intended for entry).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mary Anne Kay
Examiner

/JOSEPH P. HIRL/
Supervisory Patent Examiner, Art Unit 2426
September 12, 2011